

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A communication system for carrying out data communication among a plurality of communication stations, comprising:

a first communication station configured to transmit a request to send signal to at least one other communication station, the request to send signal indicating a request to initiate data transmission; and

a second communication station configured to receive the request to send signal transmitted from said first communication station, and to transmit a clear to send signal to at least one of the plurality of communication stations in reply to the request to send signal, wherein

said first communication station receives the clear to send signal transmitted from said second communication station,

the request to send signal received by said second communication station includes an addresses of said second communication station, and

the clear to send signal includes a first section including information used to indicate an interval of time during which a communication station having an address that is not included in the clear request to send signal must stop its communication operation, and a second section including the address of said first ~~second~~ communication station.

Claim 2 (Previously Presented): The communication system according to claim 1, wherein said first communication station has a plurality of antenna elements for a directive antenna, the clear to send signal transmitted from said second communication station includes reference information known to said first communication station, and said first communication station adaptively determines timing information for the directive antenna

based on the reference information in the clear to send signal transmitted from said second communication station.

Claim 3 (Previously Presented): The communication system according to claim 2, wherein said first communication station is further configured to transmit data using space division multiplexing to said second communication station using said plurality of antenna elements, when receiving the clear to send signal transmitted from said second communication station, and said second communication station is further configured to transmit an acknowledgement signal including second reference information known to said first communication station, the acknowledgement signal is inherent to said second communication station when receiving the data transmitted from said first communication station.

Claim 4 (Previously Presented): The communication system according to claim 1, wherein said second communication station transmits the clear to send signal including its own address.

Claim 5 (Previously Presented): The communication system according to claim 1, wherein said second communication station is further configured to time-divisionally transmit the clear to send signal.

Claim 6 (Previously Presented): The communication system according to claim 1, wherein said second station is further configured to transmit the second section in a time divisional manner after transmitting the first section.

Claim 7 (Previously Presented): The communication system according to claim 1, wherein said second communication station is further configured to transmit the second section after transmitting the first section.

Claim 8 (Previously Presented): The communication system according to claim 1, wherein said first communication station and said second communication station perform wireless communications.

Claim 9 (Currently Amended): A communication method for carrying out data communication among a plurality of communication stations, comprising:

transmitting a request to send signal from a first communication station to at least one other communication station, the request to send signal indicating a request to initiate data transmission;

receiving the request to send signal transmitted from said first communication station at a second communication station; and

transmitting a clear to send signal from said second communication station to at least one of the plurality of communication stations, in reply to the request to send signal, wherein

said first communication station receives the clear to send signal transmitted from said second communication station,

the request to send signal received by said second communication station includes an address of said second communication station, and

the clear to send signal includes a first section including information used to indicate an interval of time during which a communication station having an address that is not included in the clear ~~request~~ to send signal must stop its communication operation, and a second section including the address of said first ~~second~~ communication station.

Claim 10 (Previously Presented): The communication method according to claim 9, wherein said first communication station has a plurality of antenna elements for a directive antenna, said second communication station transmit clear to send signal describing at least reference information known to said first communication station, and said first communication station adaptively determines timing information for the directive antenna on the basis of the reference information in the clear to send signal transmitted from said second communication station.

Claim 11 (Previously Presented): The communication method according to claim 10, wherein said first communication station transmits data by space division multiplexing to said second communication station using said plurality of antenna elements when receiving the clear to send signal transmitted from said second communication station, and said second communication station is further configured to transmit an acknowledgement signal, including second reference information known to said first communication station, said acknowledgement signal is inherent to said second communication station when receiving the data transmitted from said first communication station.

Claim 12 (Currently Amended): A communication apparatus for transmitting data to other communication stations, comprising:

data processing means for generating a request to send signal indicating a request to initiate data transmission, the request to send signal including an address of a second communication station that is intended to receive the data transmission; and

communication means for transmitting the request to send signal, and receiving a clear to send signal from said second communication station, in reply to the request to send signal, wherein

the clear to send signal includes a first section including information used to indicate an interval of time during which a communication station having an address that is not included in the clear ~~request~~ to send signal must stop its communication operation, and a second section including the address of said first ~~second~~ communication station, said second communication station transmits said clear to send signal.

Claim 13 (Previously Presented): The communication apparatus according to claim 12, wherein said communication means receives a plurality of clear to send signals transmitted from a plurality of communication stations which receive the request to send signal.

Claim 14 (Previously Presented): The communication apparatus according to claim 13, wherein said communication means includes a plurality of antenna elements for a directive antenna, and the data processing means adaptively determines timing information for the directive antenna based on the reference information in the clear to send signals transmitted from the plurality of communication stations.

Claim 15 (Previously Presented): The communication apparatus according to claim 14, wherein said data processing means obtains transfer functions between each of antenna elements of said plurality of communication stations and each of said plurality of antenna elements thereof on the basis of the reference information in the plurality of the clear to send

signals transmitted from said plurality of communication stations, and adaptively determines the timing information for the directive antenna on the basis of the transfer functions.

Claim 16 (Previously Presented): The communication apparatus according to claim 14, wherein said communication means transmits data by the space division multiplexing to each of said plurality of communication stations using said plurality of antenna elements when receiving the clear to send signals transmitted from each of said plurality of communication stations, and receives an acknowledgement signal that is inherent to the communication station itself, the acknowledgement signal includes second reference information known to the other communication stations when receiving the data transmitted from each of the plurality of communication stations.

Claim 17 (Previously Presented): The communication apparatus according to claim 16, wherein said data processing means directly determines timing information of the directive antenna based on the second reference information included in a plurality of acknowledgement signals transmitted by the plurality of communication stations.

Claim 18 (Previously Presented): The communication apparatus according to claim 13, wherein said communication means receives the clear to send signals transmitted from each of said plurality of communication stations, including addresses of each of the plurality of communication stations.

Claim 19 (Previously Presented): The communication apparatus according to claim 13, wherein said communication means time-divisionally receives the plurality of clear to

send signals time-divisionally transmitted from each of the plurality of communication stations.

Claim 20 (Previously Presented): The communication apparatus according to claim 13, wherein said communication means receives in time divisional manner a plurality of second sections transmitted from each of the plurality of communication stations in time divisional manner after receiving the plurality of first sections transmitted from each of the plurality of communication stations.

Claim 21 (Previously Presented): The communication apparatus according to claim 13, wherein said communication means receives the plurality of second sections transmitted from each of the plurality of communication stations after receiving the plurality of first sections transmitted from each of the plurality of communication stations.

Claim 22 (Currently Amended): A communication apparatus for receiving data transmitted from other communication stations, comprising:

communication means for transmitting and receiving data; and  
data processing means for processing the data transmitted and received by the communication means, wherein

when the communication apparatus receives a request to send signal requesting a transmission upon the start of the data transmission in transmission origin station, said data processing means generates a clear to send signal, the clear to send signal includes a first section including information used to indicate an interval of time during which a communication station having an address that is not included in the clear request to send signal must stop its communication operation, and a second section including the address of

said communication apparatus, said communication means transmits said clear to send signal,  
and

the request to send signal describing at least an address of a communication station  
that is intended to receive the data transmission.

Claim 23 (Previously Presented): The communication apparatus according to claim 22, wherein a communication station on a transmission side includes a plurality of antenna elements for a directive antenna, and the data processing means generates the clear to send signal including reference information known to the communication station on the transmission side and used for adaptively determining timing information for the directive antenna based on the reference information, and the communication means transmits the clear to send signal.

Claim 24 (Previously Presented): The communication apparatus according to claim 23, wherein the reference information includes information used for obtaining transfer functions between antenna elements of itself and the plurality of antenna elements of the communication station on the transmission side.

Claim 25 (Previously Presented): The communication apparatus according to claim 23, wherein when said data processing means receives the data transmitted from the communication station on the transmission side using a plurality of antenna elements by the space division multiplexing, said data processing means generates an acknowledgement signal known to the communication station on the transmission side sent to the other communication stations and including a second reference signal used for directly determining



timing information of the directive antenna by the communication station on the transmission side, and said communication means transmits the acknowledgement signal.

Claim 26 (Previously Presented): The communication apparatus according to claim 22, wherein said data processing means generates the clear to send signal including its own address.

Claim 27 (Previously Presented): The communication apparatus according to claim 22, wherein said data processing means time-divisionally transmits the clear to send signal.

Claim 28 (Previously Presented): The communication apparatus according to claim 22, wherein said communication means time-divisionally transmits the second section after transmitting the first section.

Claim 29 (Previously Presented): The communication apparatus according to claim 22, wherein said communication means transmits the second section after transmitting the first section.

Claim 30 (Previously Presented): The communication system according to claim 1, wherein said first section is a format that the communication station having an address that is not included in the request to send signal can interpret, and said second section is a format that the communication station the communication station having an address that is not included in the request to send signal can not interrupt.